

Montana DEQ Forest Fire Smoke Advisory

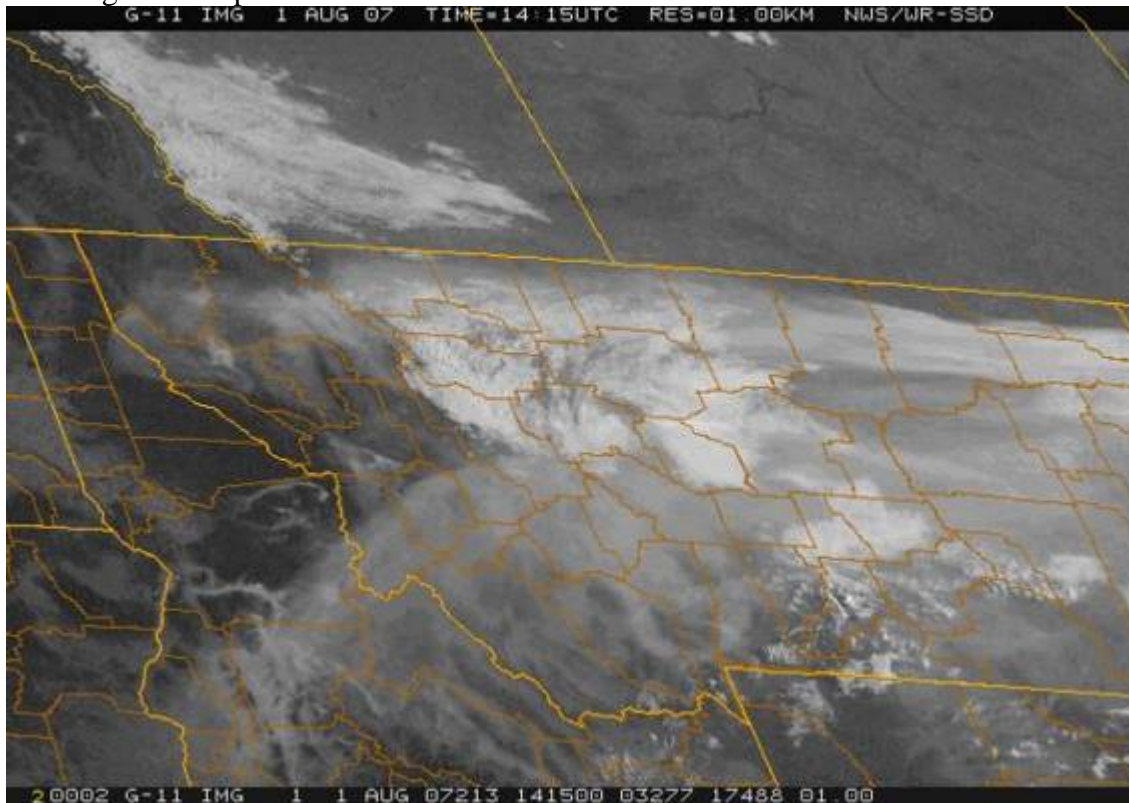
August 01 2007

10:00 AM Wednesday

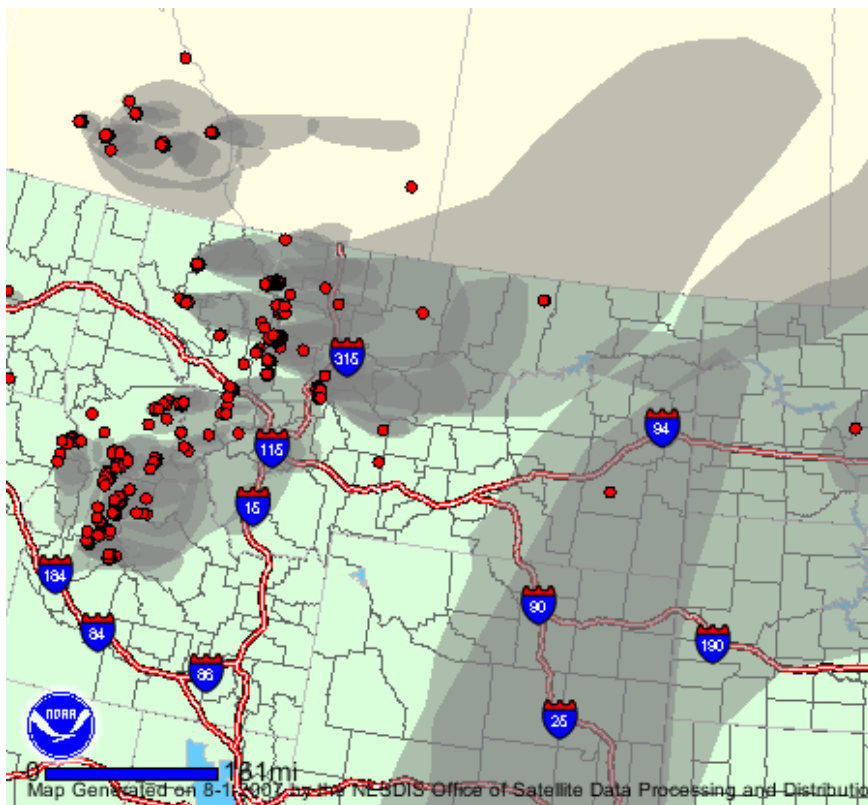
Current Situation

The smoke plume aloft stretches across the entire state this morning. Last night the smoke at the surface was at [VERY UNHEALTHY](#) levels near the Front Range in Augusta and Choteau and at [UNHEALTHY](#) in Great Falls for several hours. Conditions in those areas are much improved this morning with the smoke staying above the surface inversion for now. Smoke has filled the Clark Fork Valley from Rock Creek into the east edge of Missoula (see the Missoula web cam picture below). The conditions there are expected to be [UNHEALTHY](#) or worse. There also looks to be a lot of smoke trapped in the northern Flathead Valley. Current smoke levels in the Kalispell and Whitefish areas are at [UNHEALTHY FOR SENSITIVE](#) and will be worse later today, see the forecast below for details. [MODERATE](#) levels of smoke are present at all of the western Montana reporting stations with the exception of Libby. Smoke levels at the surface across the state will ramp up this morning as the mixing height reaches the layer of smoke aloft. Direct smoke impacts from local fires may be severe today. Residents near active fires or experiencing noticeable smoke levels should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions.

Morning satellite photo centered on Great Falls:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind(the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage)

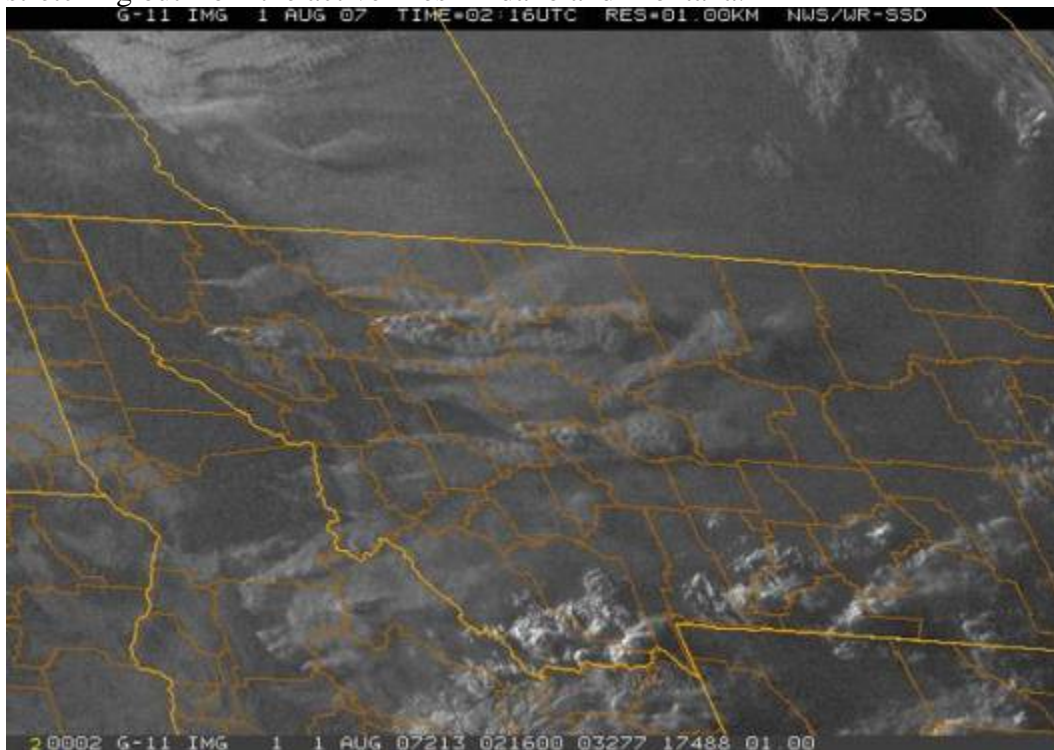


Red indicates hot spot detected. Grey represents smoke seen by satellite. Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lg_fire2.php

This satellite photo taken last night at 8:16 PM clearly shows the many plumes of smoke stretching out from the active fires in Idaho and Montana.



This web cam photo below from the Missoula County Health department at 9:21 AM this morning shows the front edge of the smoke from the Mile Marker 124 fire draining into the Missoula Valley out of Hellgate canyon.



Smoke billows up from the Meriwether fire above the Gates of the Mountains last night about 8 PM. (Photo by Candace Coefield)



Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

Updated 10 AM August 01, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

HAZARDOUS	
VERY UNHEALTHY	
UNHEALTHY	Butte T24
UNHEALTHY FOR SENSITIVE GROUPS	Whitefish T24 Kalispell T24 Missoula vis (1)
MODERATE	Hamilton T24 Helena T24 Cut Bank Vis(2) Choteau T24 Augusta T24 Great Falls Vis(1) Dillon Vis (3) Bozeman Vis(2) Livingston Vis(5)

T1(x) One-hour TEOM or BAM value (number of values)
T8(x) Eight-hour average TEOM or BAM value(number of values)
T24 24 hour average TEOM or BAM value
Vis(x) Visibility value(number of hours)
Vis(am/pm) Visibility value from twice/day reporting stations
(est) estimate

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local [visibility guidelines](#) to evaluate possible health risks and make informed activity decisions.

Forecast

There is a steady surface flow from the north today east of the continental divide with westerly winds aloft. This will send the top of any big smoke plumes this afternoon and evening towards the east and then spread the smoke mixing down to the surface towards the south. Smoke aloft will continue to cover the entire state through tomorrow except for the extreme northwest corner. West of the divide, east winds near the surface will keep a lot of smoke bottled up in the mountains producing very elevated smoke levels in many areas. Surface smoke levels east of the divide will spike up sharply for several hours this morning as the smoke mixes down. Smoke at [UNHEALTHY FOR SENSITIVE](#) levels will be occurring in many communities until about 1 or 2 this afternoon. Smoke levels under the thickest parts of the plume aloft could reach [UNHEALTHY](#). Direct plume impacts will be problem today for many areas. Residents need to pay close attention to conditions in their area and use the [visibility guidelines](#) to guide their activity decisions as the situation changes.

[John Coefield](#), Meteorologist
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